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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/548,667	04/13/2000	James A. Shields	11418ROUS01	7694

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EXAMINER
NGUYEN, TOAN D

ART UNIT	PAPER NUMBER
2665	4

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)
Office Action Summary	09/548,667	SHIELDS ET AL.
	Examiner	**Art Unit**	
	Toan D Nguyen	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>13 April 2000</u> .

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-31</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20 and 24-31</u> is/are rejected.

7)☒ Claim(s) <u>21-23</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____ .

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

Claim Rejections - 35 USC § 112

1.   Claims 1 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

In claim 1 line 9, it is unclear as to what is meant by "flow control mechanisms present at

said data terminal operate to compensate for the change from said first to said second BW".

Similar problem exists in claim 10 line 11.

Claims 2-9 and 11-17 are rejected since they are dependent from base claims.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4.   Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steven

Chapman (GB 2286745A) in view of Sawey et al. (U.S. Patent 6,195,330 B1).

For claim 1, Steven Chapman disclose path protection in an SDH network, comprising:

distributing the total BW available for said transport network into a first BW and a

second BW (page 13 lines 17-19);

transmitting traffic in a data pipe of said first BW during normal operation of said

transport network (figure 1, page 5 lines 2-4); and

squeezing said data pipe to said second BW whenever a protection switch occurs in said

transport network (figure 2, page 11 lines 8-13).

However, Steven Chapman does not disclose wherein flow control mechanisms present

at said data terminal operate to compensate for the change from said first to said second BW. In

an analogous art, Sawey et al. disclose wherein flow control mechanisms present at said data

terminal operate to compensate for the change from said first to said second BW (col. 8 lines 48-

51). One skilled in the art would have recognized a flow control mechanism present at said data

terminal operate to compensate for the change from said first to said second BW to use the

teachings of Sawey et al. in the system of Steven Chapman. Therefore, it would have been

obvious to one of ordinary skill in the art at the time invention, to use the flow control

mechanism as taught by Sawey et al. in Steven Chapman's with the motivation being to

compensate for the time delay between working and protect payload (col. 8 lines 50-51).

For claim 2, Steven Chapman discloses wherein said step of squeezing comprises

changing the data rate of said data terminal between a fast rate during normal operation and a

slow rate during a protection switched operation (figure 6, page 12 line 20).

For claim 3, Steven Chapman discloses wherein said first BW is higher than said second

BW (page 2 lines 12-17 and page 12 line 20).

For claim 4, Steven Chapman discloses wherein said protection switch operates at the path sublayer of said transport network, with said first BW higher than said second BW (page 12 lines 20-21).

For claim 5, Steven Chapman discloses wherein said step of transmitting comprises selecting a first route between said end nodes, allocating said first BW from the unprotected connections class, and accommodating said data pipe along said first route (figure 1, page 2 lines 14 and page 5 lines 1-4).

For claim 6, Steven Chapman discloses wherein said step of squeezing said data pipe comprises selecting a second route between said end nodes, allocating said second BW from the unprotected connections class, and accommodating the traffic pipe along said second route (figure 1, page 2 lines 14 and page 5 lines 1-4).

For claim 7, Steven Chapman discloses wherein said protection switch operates at the line sublayer of said transport network between two tandem nodes (page 6 lines 19-21).

For claim 8, Steven Chapman discloses wherein said step of transmitting comprises allocating said first BW from the protected and unprotected connections classes and accommodating said data pipe along a path between said two data terminals, including said two tandem nodes (figure 1, page 5 lines 1-4).

For claims 9 and 12, Steven Chapman discloses wherein said step of squeezing said data pipe comprises allocating said second BW to said path (figure 2, page 11 lines 8-9).

For claim 10, the claim is directed to the same subject matter as in claim 1. Therefore, it is subject to the same rejection.

For claim 11, Steven Chapman discloses wherein said step of transmitting comprises operating said data terminals to provide load sharing between said two routes, and accommodating said traffic along said first and second routes (figure 1, page 5 lines 1-4).

For claim 13, Steven Chapman discloses wherein said step of squeezing comprises changing the data rate of said data terminal between a fast rate during normal operation and a slow rate during a protection switched operation (figure 6, page 12 line 20).

For claims 14 and 15, Steven Chapman discloses wherein said protection switch is operating at path sublayer of said transport network, and said first and second BW are allocated from the unprotected connections class (page 6 line 19 to page 7 line 21).

For claim 16, Steven Chapman discloses wherein said transport network is provided with means for path protection switching, said traffic pipe uses a first route of said first BW during normal operation and a diverse route during a path protection switch, and said first BW and said second BW are selected from the unprotected connections class (page 2 lines 13-22 and page 6 line 19 to page 7 line 21).

For claim 17, the claim is directed to the same subject matter as in claim 14. Therefore, it is subject to the same rejection.

For claim 25, the claim is directed to the same subject matter as in claim 1. Therefore, it is subject to the same rejection.

5.   Claims 18-20 and 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steven Chapman (GB 2286745A) in view of Klish (U.S. Patent 6,014,708).

For claims 18-20, 24 and 26, Steven Chapman disclose path protection in an SDH network, comprising:

a link between said adaptive rate interfaces for accommodating a traffic pipe of a first

BW corresponding to said fast rate during normal operation (figure 1, page 5 lines 2-4), and a

squeezed traffic pipe of a second BW corresponding to said-slow rate during a protection switch

(figure 2, page 11 lines 8-13 and page 12 line 20); and

protection switching means for detecting an interruption in said traffic pipe and operating

a protection switch (page 6 lines 19-21).

However, Steven Chapman does not disclose an adaptive rate interface at each said end

node for changing the transmit and receive rate between a fast rate to a slow rate. In an

analogous art, Klish discloses an adaptive rate interface at each said end node for changing the

transmit and receive rate between a fast rate to a slow rate (figure 9, col. 5 line 13); wherein said

adaptive rate interface comprises an Ethernet mapper connected between said data terminal and

said node for changing the mapping of data packets between said fast and said slow rates (col. 6

lines 10-13 as set in claim 24); wherein said network is a SONET/SDH network, said first rate is

a STS-N, and said second rate is a STS-M, where M<N (figure 9 as set forth in claim 26).

One skilled in the art would have recognized an adaptive rate interface to use the

teachings of Klish in the system of Steven Chapman. Therefore, it would have been obvious to

one of ordinary skill in the art at the time invention, to use the adaptive rate interface as taught by

Klish in Steven Chapman's system with the motivation being to response to the input signal (col.

5 lines 13-14).

For claims 27-31, Steven Chapman discloses wherein transition from said normal state to

said squeezed state begins on receipt of STS path AIS (page 10 line 21 to page 11 line 2).

Allowable Subject Matter

6.   Claims 21-23 are objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base claim
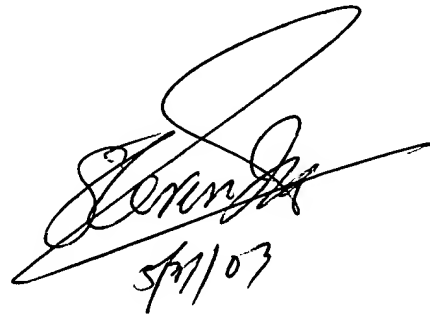
and any intervening claim.

Contact Information

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Toan D Nguyen whose telephone number is 703-305-0140. The

examiner can normally be reached on Monday- Friday (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mr. Huy Vu can be reached on 703-308-6602. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-872-9314 for regular

communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-9600.

T.N.